

CLAIMS

1. A device for assistance in the selection of a compression orthosis and in adapting same to the morphology of a limb for which the orthosis is intended, characterized in that it comprises:

- means (26) for establishing a first file containing data representative of the morphological characteristics of the limb (30), this first data file comprising the coordinates, in a three-dimensional space, of a array of points (68) distributed on the surface of the limb along a succession of contours (66) defined at different successive coordinates (Z) of that limb;

- means (10) for establishing a second file containing data representative of the dimensional and rheological characteristics of the orthosis defined at different successive coordinates (Z) of that orthosis;

- compression simulation means (48) able to determine, using data from the first and second files, compression pressure values that are liable to be exerted by the orthosis on the limb at a plurality of points of said array; and

- means (50) for displaying said pressure values determined by the compression simulation means.

2. The device of claim 1, wherein the second data file contains data for the flat width (L_0) of the orthosis at said successive coordinates and data ($\Delta x/\Delta f$) representative of the deformation characteristic of the orthosis as a function of the tension exerted thereon between points situated at consecutive coordinates.

3. The device of claim 1, further comprising designation means enabling an operator of the device to designate a point of the array and to command the pressure

value display means to display the value of the pressure calculated at the designated point (82).

5 4. The device of claim 1, further comprising
designation means enabling an operator of the device to
designate a coordinate of the array and to command the
pressure value display means to display the pressure value
calculated at the various points of the contour of the
section of the limb situated at the designated coordinate
10 (78).

 5. The device of claim 1, wherein the display
means comprise graphical means able to display a three-
dimensional graphical representation (52) of the limb and
15 to associate locally with that graphical representation the
pressure values calculated at the various points of said
array.

 6. The device of claim 1, wherein the display
20 means comprise graphical means able to display a two-
dimensional graphical representation (58) of a section of
the limb and to associate locally with that graphical
representation the pressure values calculated at the
various points of the contour of that section.

25 7. The device of claim 5 or claim 6, wherein the
graphical means associate the calculated pressure values
with the graphical representation by superimposing a coding
by grey levels or false colours of the pressure calculated
30 at those points on said graphical representation at the
location of the various points.

 8. The device of claim 1, wherein the display
means comprise graphical means able to display a
35 characteristic (62) giving the variation as a function of

angular position of the pressure calculated at the various points of the contour of a section of the limb situated at a given coordinate.

5 9. The device of claim 1, wherein:

- the simulation means are also able to determine average values of the compression pressure at points situated at the same coordinate, and

10 - the display means comprise graphical means able to display a characteristic (56; 80) giving the variation as a function of the coordinate of the calculated mean compression pressure.